

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) An integrated circuit comprising:  
  
a fail safe sensor;  
  
halt logic to halt operation of the integrated circuit in response to the fail safe sensor indicating that a threshold temperature has been exceeded.
2. (Original) The integrated circuit of Claim 1 wherein the threshold temperature is a predetermined fixed critical temperature.
3. (Original) The integrated circuit of Claim 1 wherein the halt logic is to inhibit operation of the integrated circuit by stopping a clock for the integrated circuit.
4. (Original) The integrated circuit of Claim 1 wherein the halt logic protects the integrated circuit without software control.
5. (Original) The integrated circuit of Claim 1 comprising:  
  
A plurality of thermal sensors placed across the integrated circuit;  
  
An averaging mechanism in communication with the fail-safe sensor to calculate an average temperature from the plurality of thermal sensors.
6. (Original) The integrated circuit of Claim 1 further comprising clock adjustment logic in communication with the fail-safe sensor to control temperature of the integrated circuit by increasing and decreasing a clock frequency of the integrated circuit.
7. (Original) The integrated circuit of Claim 1 further comprising adjustment logic in communication with the fail-safe sensor to execute instructions to provide closed loop control of the integrated circuit clock frequency, thereby automatically reducing the temperature when overheating occurs.
8. (Original) The integrated sensor of Claim 1 further comprising clock adjustment logic in communication with the fail-safe sensor to decrease a clock frequency of the

integrated circuit in response to the fail-safe sensor indicating that a threshold temperature value has been exceeded.

9. (Original) The integrated sensor of Claim 1 further comprising threshold adjustment logic in communication with the fail-safe sensor to increase the threshold temperature value to a new threshold temperature value in response to the fail-safe sensor indicating that the threshold temperature value has been exceeded.

10. (Original) The integrated circuit of Claim 8 wherein the threshold adjustment logic is further to lower the new threshold temperature to detect decreases in temperature.

11. (Original) The integrated circuit of Claim 1 further comprising an interrupt handler to display information regarding a temperature sensed by the fail-safe sensor to a user of the integrated circuit.

12. (Currently Amended) A method comprising:  
sensing a temperature of an integrated circuit using a sensor provided on the integrated circuit;

halting operation of the integrated circuit in response to a threshold temperature being exceeded.

13. (Original) The method of Claim 12 wherein the threshold temperature is a predetermined fixed critical temperature.

14. (Original) The method of Claim 12 wherein halting operation comprises inhibiting operation of the integrated circuit by stopping a clock for the integrated circuit.

15. (Original) The method of Claim 12 wherein halting operation comprises inhibiting operation of the integrated circuit by stopping a clock for the integrated circuit.

16. (Original) The method of Claim 12 further comprising controlling the temperature of the integrated circuit by increasing and decreasing a clock frequency of the integrated circuit in response to the sensed temperature.

17. (Original) the method of Claim 12 further comprising executing instructions to provide closed loop control of the integrated circuit clock frequency in response to the sensed temperature.

18. (Original) The method of Claim 12 further comprising decreasing a clock frequency of the integrated circuit in response to the sensed temperature indicating that a threshold temperature value has been exceeded.

19. (Original) The integrated circuit of Claim 12 further comprising displaying information regarding a sensed temperature to a user of the integrated circuit.